

Title (en)

Compact dual-frequency microwave feed.

Title (de)

Kompakter Mikrowellenerreger für zwei Frequenzbereiche.

Title (fr)

Source rayonnante bi-bande compacte fonctionnant dans le domaine des hyperfréquences.

Publication

EP 0045254 A1 19820203 (FR)

Application

EP 81401185 A 19810724

Priority

FR 8016712 A 19800729

Abstract (en)

1. Compact double band radiating source operating within the microwave range, formed of a first set comprising a semi-transparent reflector (290) and a source radiating according to a first direction of polarization, this first set operating within the highest frequency band, and a second set comprising a totally reflecting device (301) and a source radiating according to a direction of polarization perpendicular to the direction of polarization of the first set, characterized in that the two reflectors (290 and 301) are of dihedral shape having an angle inferior to 180 degrees, the respective edges (310 and 32) being perpendicular, in that the semi-transparent reflecting device (290) transmits the wave radiated by the source with which it is associated and totally reflecting the wave radiated by the source associated with the totally reflecting device (301), and in that the two sources are formed of dipoles the arms of which are parallel to the edge of the associated dihedron, and the number and positions of which with respect to each other are determined in such a manner that the phase centers of the two sources are coincident (Figure 5).

Abstract (fr)

Source compacte bi-bande fonctionnant dans le domaine des hyperfréquences, comportant deux ensembles constitués chacun par un système de dipôles rayonnants (6 et 8-9) et par un dispositif réflecteur (7 et 10), les polarisations des ondes rayonnées respectivement par les deux ensembles étant croisées l'une par rapport à l'autre et la position relative de ces deux ensembles l'un par rapport à l'autre étant telle que leurs centres de phase sont confondus. Application aux antennes à balayage électronique et aux sources primaires éclairant un système optique focalisant.

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Citation (search report)

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